

### **REMARKS**

Claims 1-47 have been examined in the Application. The Examiner has objected to the Abstract as exceeding the allowable limit of 150 words and being in improper form.

Claims 1 and 43 are rejected under 35 U.S.C. 112 first paragraph as failing to comply with the enablement requirement. Claims 1-7, 13, 14, 16, 17, 18-20, 25, 26, 27, 28, 29, 37, 46 and 47 are rejected under 35 U.S.C. 102.

Claims 8,9,10,11,12,15,35,36,37-39, and 40-47 rejected under 35 U.S.C. 103 (a). Applicants respectfully disagree in part with the Examiner's objections and traverse these rejections for the following reasons.

#### **Allowable Subject Matter**

The Examiner has objected Claims 21-24 and 30-34 as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. Applicant has appended hereto newly added claims 48-56 which correspond to claims 21-24 and 30-34 rewritten in independent form.

#### **Reply to Objection to the Abstract of the Disclosure**

The Examiner has objected to the length and form of the Abstract of the Disclosure. In response to the Examiner's objection, Applicant has provided herewith, a replacement Abstract.

**35 U.S.C. 112 Rejections**

Claims 1 and 43 have been rejected by the Examiner under 35 U.S.C. 112.

Specifically, the Examiner asserts that the claims contain subject matter, which was not described in the specification in such a way as to enable one skilled in the art to make or use the invention. Specifically, the Examiner indicates that Claims 1 and 43, line 5 recites receiving a second message from the clock, but fails to identify if master or slave.

It is unclear what the Examiner is referring to in this objection, and Applicant therefore respectfully disagrees with the Examiner and traverses this rejection as follows: Applicant has carefully reviewed the claim language referenced by the Examiner and cannot find the objectionable language cited by the Examiner. In particular, line 5 of Claim 1 does not refer to a second message at all. Line 6, however does refer to a second message, but recites that the message is received from the "clock master", a term with a clear antecedent in line 1 of claim 1. Thus, Applicant cannot find any deficiency with the language of the claim as described by the Examiner. Similarly, with respect to claim 43, in each instance where the term "second message" is used, it is recited with respect to "the clock master", a term with a proper antecedent at both the beginning of the claim and in claim 41, from which claim 43 depends. Applicant, therefore, cannot find the deficiency in claim 43 referred to by the Examiner in the Office Action.

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**Reply to 35 U.S.C. 102 Objections**

The Examiner has rejected claims 1-7, 13, 14, 16, 17, 18-20, 25, 26, 27, 28, 29, 37, 46 and 47 under 35 U.S.C. 102 (e) as being anticipated by Read et al (U.S. patent No 6,236,623). Specifically, the Examiner asserts that Read et al teaches communications between a master device 12 and a slave control device 14 wherein the master clock sends a first message of a first transit time T1 to the slave clock and similarly a second transit time T2 from slave to master clock is sent, the total loop communication delay is monitored in reference to the master clock circuitry 18 and/or the master time 22 and measured, the loop communication delay is divided by 2 to compute an average delay, and applying the average delay to compensate for the known time setting errors for each of the slave clocks, wherein the controller is a programmed processor. The Examiner is

therefore asserting that Read et al anticipates the above listed claims of the present invention.

Applicant respectfully disagrees with the Examiner's application of the methods and apparatus of Read et al to the present invention and traverses this rejection as follows:

Read et al is directed to a system and method for synchronizing clocks in a plurality of devices across a communication channel. In Read, a master control device is coupled to one or more slave control devices, e.g. event recorders, across a communication channel. In the method disclosed in Read, the master control device periodically interrogates and monitors the responses of each of the slave control devices to determine the transit time for communications between the master control device and the slave control devices. The master control device then adjusts or interprets any event times reported by the slave control devices to improve the relative time accuracy of the slave control devices as compared to a time maintained by the master control device.

In contrast thereto, the present invention is directed to a method for synchronizing a Base station Transceiver to a Radio Network controller in a wireless communications network wherein time synchronization is performed between a clock master and a clock slave. In the method of the present invention, the clock master comprises a first clock and the clock slave comprises a second clock. To achieve synchronization between the clock master and the clock slave, several time synchronization passes are **initiated by the clock slave to the clock master**. For every pass, each clock slave component generates and transmits a first timing cell to the clock master. The first timing cell contains a transmission time based on the clock slave component's clock. Upon receipt of the first timing cell, the clock master generates and transmits to the clock slave component a second timing cell containing the time the clock master received the first timing cell and the time the clock master transmitted the second timing cell. Upon receipt of the second timing cell, the clock slave component will obtain its reception time and calculate a transmission delay based on the reception time and the timing information contained in the timing cells. Thus, in the present invention, time synchronization is based on

interrogation of **the clock master by the clock slave** and a subsequent adjustment of timing by the clock slave in response to a response from the clock master to the initial interrogation by the clock slave. In Read et al the synchronization method disclose relies on interrogation of **the slave control devices by the master control device**. Based on information resulting from the interrogation of the slave control device, the **master control device** adjusts the timing of the slave control device.

This distinction is clearly articulated in lines 1-16 of claim 1 and the step of initially interrogating the clock master by the clock slave can be clearly understood by one skilled in the art to which the invention pertains. This step of first interrogating the clock master by the clock slave and the subsequent step of the clock slave receiving a message in response to the initial interrogation by the clock is not performed in the method disclosed in Read et al. accordingly Read et al does not anticipate claims 1-7, 13, 14, 16, 17, 18-20, 25, 26, 27, 28, 29 37, 46 and 47 of the present invention.

#### **Reply to 35 U.S.C. 103 Objections**

The Examiner has rejected claims 8, 9, 10, 11, 12, 15, 35, 36, 37-39, and 40-47 under 35 U.S.C. 103(a) as being unpatentable over <sup>R</sup>read et al (U.S. Patent 6, 236, 623) in view of Lundh et al (U.S. Patent 6,373,834).

The Examiner contends that Read et al discloses synchronization between a master timing clock and a slave timing clock in accordance with the present invention but fails to teach employing the CDMA telecommunications system within the disclosed network. The Examiner asserts that Lundh et al, however, teaches employing the CDMA telecommunications network for facilitating an accurate reliable technique for synchronization timing units, such as timing units at base stations. The Examiner contends, therefore, that it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the network disclosed in Read et al to employ CDMA telecommunications protocols within the network so as to facilitate reliable synchronization in a telecommunications network.

Applicant disagrees with the Examiner's characterization of Read et al with respect to the methods of the present invention. As outlined above in response to the Examiner's rejection under 35 U.S.C. 102, Read et al. does not anticipate the method of the present invention. Thus, Read et al in combination with Lundh et al does not disclose, teach or suggest the method recited in claims 8,9,10,11,12,15,35,36,37-39 and 40-47.

**Request for Reconsideration pursuant to 37 CFR 1.111**

Having responded to each and every ground for objection and rejection in the Office Action mailed on May 20, 2003, Applicant requests reconsideration in the instant application pursuant to 37 CFR 1.111 and requests that the Examiner allow claim(s) 1-56 and pass the application to issue. If there is any point requiring further attention prior to allowance, the Examiner is asked to contact Applicants' counsel who can be reached at the telephone number listed below.

Respectfully,  
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